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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.      | CONFIRMATION NO.       |
|--|-------------|----------------------|--------------------------|------------------------|
| 10/685,954   | 10/15/2003  | Todd M. Wenger       | H1799-00180              | 7947                   |
| 23409 7590 10/31/2007<br>MICHAEL BEST & FRIEDRICH LLP<br>100 E WISCONSIN AVENUE<br>Suite 3300<br>MILWAUKEE, WI 53202 |             |                      | EXAMINER<br>FORD, JOHN K |                        |
|  |             |                      | ART UNIT<br>.3744        | PAPER NUMBER           |
|  |             |                      | MAIL DATE<br>10/31/2007  | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/685,954

Applicant(s)

WENGER, TODD M.

Examiner

John K. Ford

Art Unit

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 8/13/07 + 4/16/07
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 14-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 14-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_.

Applicant has identified claims 1-5 and 14-20 as readable on the elected species of Figures 1-6a.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Binder et al (USP 4,295,067), Figures 9-10 and Chisholm (USP 3,965,970).

Binder discloses in Figures 9-10 a heat pipe device having a plurality of depressions 32 for receiving heat producing components. In the middle of the device in Figure 9 is a "turret" that communicates vapor up from an area in the vicinity of reference numeral 30c to the condenser 30b. The liquid drains back down through a wick that covers the inside of the device (shown by the dotted line inside the periphery of element 30). This wick is more thoroughly described in some of the other embodiments of Binder. No separate liquid return tube is shown in Binder.

In view of Chisholm it would have been obvious to have constructed Binder with a condenser having a condensate reservoir as taught by Chisholm at 16 and a

connection tube 9 to direct the condensed liquid back to the evaporator end of Binder's device depicted in Figures 9-10 of Binder to improve heat transfer.

Regarding claims 17 and 19, the intended manner of operating the device with other devices (electronic components) that are not part of the claimed combination does not impart patentability to the heat transfer device, per se. See MPEP 2114, incorporated here by reference.

Claims 1-3, 5, 14-17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Stewart (USP 4,337,825) and Chisholm (USP 3,965,970).

Stewart discloses a heat pipe device in Figure 2 having a "turret" F that communicates vapor up from an area in the vicinity of reference numeral F to the condenser C. The liquid drains back down through the "turret" F.

In view of Chisholm it would have been obvious to have constructed Stewart with a condensate reservoir at the top of element F as taught by Chisholm at 16 and a connection tube 9 to direct the condensed liquid back to the evaporator end of Stewart's device depicted in Figure 2 to improve heat transfer.

Regarding claims 17 and 19, the intended manner of operating the device with other devices (electronic components) that are not part of the claimed combination does not impart patentability to the heat transfer device, per se. See MPEP 2114, incorporated here by reference.

Claims 4, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stewart/Chisholm as applied to claims 1-3, 5, 14-17 and 19 above, and further in view of Binder et al. (USP 4,295,067).

To have added wicking material to the interior envelope of Stewart to improve liquid distribution through the device would have been obvious to one of ordinary skill in the art in view of the teaching of the Binder reference.

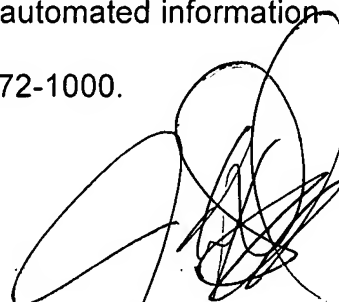
Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John K. Ford whose telephone number is 571-272-4911. The examiner can normally be reached on Mon.-Fri. 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to be 'John K. Ford', with a large, loopy flourish extending from the end of the signature.

**John K. Ford**  
Primary Examiner